ABSTRACT

At is an object to provide and IC card which is facilitated in circuit configuration and program-development as well as a communication system which is improved in characteristics such as the rate of communication and the distance of communication. An IC card 10 comprises an antenna 22a for receiving an electromagnetic wave for supplying electric power, an antenna 22b for receiving an electromagnetic wave for data, rectifying circuit 11 with a capacitor 6 to rectify the received electromagnetic wave to get electric power, a power source circuit 12 for supplying a power source voltage to an internal circuit of the IC card 10 by the use of the electric power obtained, a detecting circuit 13 for detecting a component of data from the received electromagnetic wave, a modulating/demodulating circuit 14 received data and modulating data to be transmitted, demodulating the oscillation circuit 1 for generating a clock signal CP to be supplied into internal circuits, and a semiconductor device as a micro-computer and memories, not shown, processing and storing the data obtained.